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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of: JOSEPH HONEIN	§ § §	Atty File: IM 1725 CIP
Serial No.: 10/035,998	§ §	Group Art Unit: 3634
Filed: 12/26/2001	§	Examiner: A. CHIN SHUE

For: COMPOSITE SCAFFOLDING PLANK AND METHOD OF FORMING SAME

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF

1. Transmitted herewith in triplicate is the APPEAL BRIEF in this application with respect to the Notice of Appeal.

2. **STATUS OF APPLICANT**

This application is on behalf of
[ ] other than a small entity
[X] small entity

3. [X] Applicant hereby petitions for an extension of time of (1) month for filing the Brief from the Notice of Appeal filed May 8, 2005 as provided in 37 CFR 1.136 (a).
[X] a fee in the amount of $ 60.00
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Pursuant to 37 CFR 1.17(f) the fee for filing the Appeal Brief is:
[X] small entity $170.00
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[ ] Attached is a check in the sum of
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Respectfully submitted,

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CERTIFICATE OF MAILING

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on 07/26/2005

Kenneth H. Johnson

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

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BRIEF ON APPEAL

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I.
REAL PARTY IN INTEREST

The real party in interest is the inventor, Joseph HONEIN.

II.
RELATED APPEALS

There are no related appeals or interferences of applicant, Joseph HONEIN, known to appellant or appellant's legal representative which will directly or indirectly affect or be affected by or have a bearing on the Board's decision in this appeal.

III.
STATUS OF CLAIMS

Claims 1-13 and 16 remained in the application. All of the claims are rejected.

IV.
STATUS OF AMENDMENTS

All amendments have been entered of record.

V.
SUMMARY OF THE INVENTION

The present invention is a composite scaffolding plank made from two or more wooden boards by positioning the boards in side by side parallel abutment and embedding a plurality of spaced pins transversely through the boards and to increase the strength of a wooden plank by cutting the plank longitudinally, positioning the resulting sections in side by side parallel abutment with the wood grains in alternating directions and embedding a plurality of spaced pens in the sections (spec., page 7, ln. 6-15 and Fig. 2).

The boards are compressed laterally by an external force in the boring and pinning steps such that after the manufacture when the boards are no longer compressed by an external force used in the manufacturing process, the wooden boards are held together in compression by the helical pins and holds the boards in tight abutment. (spec. page 10, ln. 5-14).

Preferably each board has a fiber bending value of at least 2200 psi, a modulus of

elasticity in the range of $1.6x10^6$ to $1.8x10^6$. (spec. page 19, ln. 7-9).

VI.
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ISSUE 1. IS CLAIM 16 OBVIOUS UNDER 35 USC 103(a) OVER ANGUERA '191 OR LARSEN OR LARSEN IN VIEW OF ANGUERA?

ISSUE 2. ARE CLAIMS 1-5, 7-12 OBVIOUS OVER LARSEN IN VIEW OF ANGUERA '191 UNDER 35 USC 103(a)?

ISSUE 3. ARE CLAIMS 9-11 OBVIOUS OVER LARSEN AND IN VIEW OF ANGUERA '191 AND IN FURTHER VIEW OF BOUTON UNDER 35 USC 103(a)?

ISSUE 4. ARE CLAIMS 6 AND 13 OBVIOUS OVER LARSEN IN VIEW OF ANGUERA '191 IN FURTHER VIEW OF BOUTON IN FURTHER VIEW OF JAPANESE '022 UNDER 35 USC 103(A)?

VII.
GROUPING OF CLAIMS

For the purposes of appeal the claims are grouped together.

VIII.
ARGUMENT

A. THE REJECTION

Claim 16 stands rejected as unpatentable over Anguera '191 under 35 USC 103(a).

Claim 16 stands rejected as unpatentable over Larsen in view of Larsen under 35 USC 103(a).

Claims 1-5, 7-12 and 16 stand rejected under 35 USC § 103(a) as being unpatentable over Larsen in view of Anguera '191.

Claims 9-11 stand rejected under 35 USC § 103(a) as being unpatentable over Larsen and in view of Anguera '191 and in further view of Bouton.

Claims 6 and 13 stand rejected under 35 USC § 103(a) as being unpatentable over

Larsen and in view of Anguera '191 and in further view of Bouton and in further view of Japanese '022 (JPN OO2).

B THE PRIOR ART

ANGUERA '191

Anguera '191 combines green wood strips of varying length disposed in an upright position in a row with other green strips, thus describing the wood grain of each strip being aligned in the same direction for each strip (plank). Anguera '191 clamps the boards drills a bore, moves the work piece and inserts a pin into a previously drilled hole. Anguera '191 uses pins with a square cross section and spiral threads. There is no teaching regarding the strength of the individual boards or the need for compression of the boards by the pin inserted in the hole.

LARSEN

Larsen discloses a scaffolding with two adjacent planks having a pin extending there through the plank. According to the translation, "the surface elements comprise multiple planks arranged side by side and penetrated and held together by a transverse connecting iron at each end of the element" (page 2, third paragraph). No information is provided on the process of attaching the elements together. However, since the walkway is to be "assembled easily and quicky", the pins are loosely fitted into the boreholes, so they can be removed and the system assembled elsewhere. This disclosure has no suggestion to any aspect of the present invention and is of only interest as "state of the art". The examiner's assertion that by binding the boards together the boards are held in compression, is totally unsupported by any disclosure in the reference. There is no art of record which would indicate that a pin (nail) driven into a board to bind the boards together

places the boards in a compressed relationship. In order to obtain the compressed relationship recited in the present claims, the boards are compressed by the manufacturing machine, then pinned together while compressed. Larsen has the pins loosely fitted into the boreholes, so they can be removed and the system assembled elsewhere. This is the opposite from the present boards, which are made to permanently replace large single board scaffold planks.

BOUTON

Bouton discloses a platform for use in scaffolding made by a clamp that extends over the upper and lower surfaces of the platform made of several side by side planks. The clamp has a hinge at one end of the two arms and at the other end a collar engages the two arms which are drawn together by a screw bolt to draw the two arms to tighten down on the planks and hold them in place.

JPN 002

JPN 002 discloses making a door with high resistance to warping by contact bonding a plurality of tie plates arranged with the wood grain in opposite directions together. After the door is formed splines (Fig. 1) or pins (Fig. 2) can be added.

C. THE ISSUES

ISSUE 1. IS CLAIM 16 OBVIOUS UNDER 35 USC 103(a) OVER ANGUERA '191 OR LARSEN OR LARSEN IN VIEW OF ANGUERA?

The present claim requires "plurality of wooden boards held together in compression by a plurality of helical pins, each of said pins having a square cross section, each said wooden board having a fiber bending value of at least 2200 psi and a modulus of elasticity in the range of $1.6x10^6$ to $1.8x10^6$". Anguera '191 clamps the boards drills a bore, moves

the work piece and inserts a pin into a previously drilled hole. Anguera '191 uses pins with a square cross section and spiral threads. There is no teaching regarding the strength of the individual boards or the need for compression of the boards by the pin inserted in the hole.

Larsen discloses planks held together by U clamps and notes that in the prior art it was known that planks arranged side by side could be penetrated and held together by a transverse metal rod at the ends. Larsen shows a scaffolding with two adjacent planks having a pin 5 extending there through the plank. According to translation, "the surface elements comprise multiple planks arranged side by side and penetrated and held together by a transverse connecting iron at each end of the element" (page 2, third paragraph). No information is provided on the process of attaching the elements together other than the pins 5 are driven through holes 7. The Larsen disclosure is the use of the U shaped clamp which drops over a rod 5 in each of two abutting elements and over a cross member 12. Driving the pin 5 through a hole 7 is not a suggestion or disclosure to place the pin in the boards under compression as recited in the present claims.

Larsen provides no information on the process of attaching the elements together. However, since the walkway is to be "assembled easily and quickly", the pins are loosely fitted into the boreholes, so they can be removed and the system assembled elsewhere. This disclosure has no suggestion to any aspect of the present invention and is only of interest as "state of the art". The examiner's assertion that by binding the boards together the boards are held in compression, is totally unsupported by any disclosure in the reference. There is no art of record which would indicate that a pin (nail) driven into a board to bind the boards together places the boards in a compressed relationship. In order

to obtain the compressed relationship recited in the present claims, the boards are compressed by the manufacturing machine, then pinned together while compressed. Larsen has the pins loosely fitted into the boreholes, so they can be removed and the system assembled elsewhere. Larsen is making boards which are the opposite from the present boards, i.e., the boards are made for permanent binding under compression to replace large single board scaffold planks. A claimed invention which involves doing what the reference tries to avoid is the very antithesis of obviousness. *In re Buehler*, 185 USPQ 781(CCPA 1975).

Larsen has no suggestion to any aspect of the present invention and is of only interest as "state of the art". Relevant to the present claims, Anguera '191 uses pins with a square cross section and spiral threads to pin the boards together, other than that none of the other limitations of the present claims are disclosed or suggested by the proposed combination. Furthermore, at no point in Anguera '191 or Larsen are the wooden boards taught to have either a fiber bending value of at least 2200 psi or a modulus of elasticity in the range of $1.6x10^6$ to $1.8x10^6$. Thus, neither reference contributes any teaching not already found in the other reference.

The application of 35 USC §103 to the issue of patentability has been considered by the Supreme Court of the United States in *Graham v. John Deere*, 383 US 1, 148 USPQ 459 (US SupCt 1966). The Supreme Court held that 35 USC §103 requires a three-pronged inquiry. It is necessary to:

(i) determine the knowledge disclosed in the prior art;

(ii) determine the differences between the teaching of the prior art and the claims at issue; and

(iii) resolve the differences between the teaching of the prior art and the claims in question on the level of the ordinary skill in the art field.

The claim is specific in the two important limitations of the present invention the compression from the pins and the strength of the individual members, neither of which is address let alone disclosed in the reference. The knowledge in the prior art (this reference) does not include or suggest the claim elements. Instead the examiner begs the issue with "obvious mechanical expedient".

This resort to a clichéd extension of the knowledge of one of ordinary skill in the art in the face of the total absence, even in non analogous art, to include the invention does not represent a proper basis for maintenance of the rejection of the present claims. Begging the issue by a term such as "obvious mechanical expedient" does not apprize applicant of the basis of the rejection. It may be a "obvious mechanical expedient" or similar connotation but how can this make it less of an invention. (See *In re Bezombes, et al.,* 164 USPQ 387). Most inventions are "obvious mechanical expedients" arranged in non obvious manner.

To be used as a reference, the reference should be enabling. The question is does the disclosure of Anguera '191 put the claimed invention in the possession of the public? See *In re Payne, et al.*, 606 F2d 303, 314, 203 USPQ 245, 255 (CCPA 1979). As this court held in *Beckman Instruments Inc. v. LKB Produkter AB*, 892 F2d 1547, 1551, 13 USPQ2d 1301, 1307 (Fed. Cir. 1989):

> "In order to render a claimed apparatus or method obvious, the prior art must enable one skilled in the art to make and use the apparatus or method"

This rejection must fail, since the references alone or combined fail to meet the basic standards required for obviousness.

ISSUE 2. ARE CLAIMS 1-5, 7-12 OBVIOUS OVER LARSEN IN VIEW OF ANGUERA '191 UNDER 35 USC 103(a)?

These claims are more detailed in the principal limitation set out in broad claim 16, in that it is required that:

> "a plurality of wooden boards each having a fiber bending value of at least 2200 psi, a modulus of elasticity in the range of $1.6x10^6$ to $1.8x10^6$"
>
> and
>
> "at least three bores extending through said plurality of wooden boards in a first direction; at least three spaced helical pins extending transversely in a second direction opposite to said first direction through and imbedded in said bores in said plurality of wooden boards, said plurality of wooden boards being under compression, normal to said wooden board sides and normal to said lengthwise direction;"

Larsen and Anguera are discussed above and the failure of the combination to add any disclosure of one to the other. Contrary to the examiner's assertion Larsen does not show the claimed planks, since there are two essential recitations, that of the property of each board and the manner of engaging them. and driving the pin 5 through a hole 7 is not a suggestion or disclosure to place the pin in the boards under compression as recited in the present claims. The examiner fails to realize that the prior art did not seek to compressively engage the boards together, they only sought and taught that the boards be placed together and held in place to form a platform. Unfortunately the safety of the workmen was, at the time of this art, not a significant concern and the references are only addressing the simple physical achievement of the goal of making a platform for a task.

Contrary to the examiner's assertion Larsen only shows a plurality of planks. it does not show or suggest any other limitations of the claims. Just as in the case of the individual

reference the examiner has failed to make out a *prima facie* case of obviousness here, additionally, "obvious mechanical expedient" regarding the plank dimensions and wood properties. (See *In re Bezombes*, *supra*.)

ISSUE 3. ARE CLAIMS 9-11 OBVIOUS OVER LARSEN AND IN VIEW OF ANGUERA '191 AND IN FURTHER VIEW OF BOUTON UNDER 35 USC 103(a)?

The examiner has already rejected these claims in combination with claims 1-5 and 1-12. This rejection at best is cumulative to the other rejection and at worst, a tacit admission by the examiner that the first rejection is deficient. Claims 9-11 depend from claim 7, and are detailed recitations of preferred properties of the boards. Since Bouton did not physically attach the boards together, it is submitted not to be relevant art, any more so than a catalogue from a mill listing various sizes of boards.

ISSUE 4. ARE CLAIMS 6 AND 13 OBVIOUS OVER LARSEN IN VIEW OF ANGUERA '191 IN FURTHER VIEW OF BOUTON IN FURTHER VIEW OF JAPANESE '022 UNDER 35 USC 103(A)?

The Larsen, Anguera and Bouton reference and the relationships and teach are discussed above. The Japanese reference (JPN 002) according to the examiner cited to show "the method of alternating the wood grains in side-by-side boards to enable high pressure resistance to warpage."

JPN 002 discloses making a door with high resistance to warping by contact bonding a plurality of tie plates arranged with the wood grain in opposite directions together. After the door is formed splines (Fig. 1) or pins (Fig. 2) can be added.

JPN 002 does not pin the plates together, but glues them together. There is no suggestion that gluing is the equivalent of the pinning and even though Fig 2 would seem

to show pins or rods through the glued plates, these are shown as equivalent to the splines, which have no relevance in regard to the present invention or claims. In the present invention placing the wooden planks side by side in parallel abutment with the wood grains in alternating directions increases the strength (spec., page 5, ln. 19-22) and has nothing to do with warping. Thus there would be no motivation to employ any information or only selected portions thereof from JPN 002 with any of the other applied references.

Rejections based on §103 must rest on a factual basis with these facts being interpreted without hindsight reconstruction of the invention from the prior art. The examiner has the initial duty of supplying the factual basis for the rejection. The examiner may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis. See *In re Warner*, 379 F.2d 1011, 154 USPQ 173 (CCPA 1967). Even if the teachings of four references can be combined, there is no factual basis from which to conclude that the apparatus resulting from the combined teachings would include the combination of elements of appellant's invention. "A critical step in analyzing the patentability of claims pursuant to section 103(a) is casting the mind back to the time of the invention, to consider the thinking of one of ordinary skill in the art, guided by the prior art references and the then-accepted wisdom in the field." *In re Kotzab*, 217 F.3d 1365, 1369-70, 55 USPQ2d 1313, 1316-17 (Fed. Cir. 2000). When one considers the rejection in this light, the evidence is seen to be inadequate to support the rationale as advanced by the examiner. The teachings of JPN 002 do not support a broader interpretation of Larsen or Anguera with regard to the limitations of compression and broad properties of the present

invention.

D. Conclusion

The claims as limited to the preferred wood (spec. page 19, lines 8-9), which define the preferred plank contemplated, is not suggested by any reference of record. There is no motivation or suggestion to make the combination of art proposed for ether of two claim groupings.

There is no *per se* rule of obviousness that eliminates the need for fact-specific analysis of claims and the prior art and that the use of such a rule must stop. See *In re Ochiai*, 37 USPQ2d 1127, 1132 (Fed. Cir. 1996). The examiner is not applying the prior art to the claims because there is no disclosure of the specific limitations, but is rather using silence as evidence. The examiner's bare statement that steps are "obvious mechanical expedients" is completely unsupported by any evidence and therefore has no weight. The examiner has failed to make out a *prima facie* case of obviousness because he has used a legal conclusion as evidence. Inventions are obvious over references and the examiner has not cited <u>any</u> reference to support his legal conclusions.

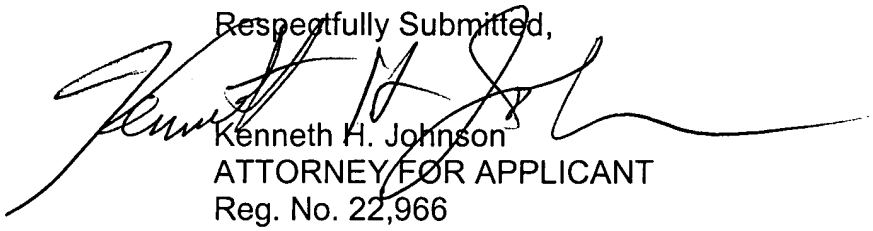
A determination of obviousness must involve more than indiscriminately combining prior art; a motivation or suggestion to combine the art must exist. *ACS Hosp. Sys., Inc. v. Montefiore Hosp.* 221 USPQ 929,933 (Fed. Cir. 1984). Such a suggestion may come from the references themselves, from references and disclosures in references known to be of importance in the particular field, and from the nature of the problem, leading inventors to look to references to possible solutions for the problem. *Pro-Mold and Tool Co. v. Great Lakes Plastics, Inc.,* 37 USPQ2d 1626, 1630 (Fed. Cir. 1996). In the

present situation the record contains no evidence of a motivation (the mere assertion by the examiner that it would be obvious to make the combination not being one of the enumerated methods to present such evidence).

The present invention can be achieved only by fallacious inductive reasoning to combine the cited references.

It requested that the final rejection be reversed.

Respectfully Submitted,



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IX.

APPENDIX

A. CLAIMS ON APPEAL

1. A composite scaffolding plank comprising:

a plurality of wooden boards each having a fiber bending value of at least 2200 psi, a modulus of elasticity in the range of $1.6x10^6$ to $1.8x10^6$, a lengthwise direction, two opposing sides being flat and extending parallel to said lengthwise direction, each of said sides having a height, said height being the smallest dimension of said wooden boards;

said plurality of wooden boards positioned in side to side parallel abutment;

at least three bores extending through said plurality of wooden boards in a first direction;

at least three spaced helical pins extending transversely in a second direction opposite to said first direction through and imbedded in said bores in said plurality of wooden boards, said plurality of wooden boards being under compression, normal to said wooden board sides and normal to said lengthwise direction; and

said plurality of wooden boards being held together in compression by said helical pins.

2. A composite scaffolding plank as in claim 1 wherein said plurality of wooden boards comprise three of said wooden boards.

3. A composite scaffolding plank as in claim 1 wherein:

each of said plurality of wooden boards having a length and including a top and two opposing ends;

said wooden board tops being co-planar;

said wooden board lengths being substantially equal; and

said wooden board ends forming a substantially continuous surface.

4. A composite scaffolding plank as in claim 1 further comprising:

said plurality of wooden boards having a transverse bore extending substantially therethrough for each of said helical pins;

so that said transverse bore facilitates placement of said corresponding helical pin in said

plurality of wooden boards.

5. A composite scaffolding plank as in claim 1, wherein each of said at least three spaced helical pins has a square cross section.

6. A composite scaffolding plank as in claim 2, wherein said three wooden boards comprise a middle board and two outer boards;

said three wooden boards each having a wood grain direction; wherein

said middle board is oriented such that the direction of said wood grain of said middle board alternates against said wood grain direction of said two outer boards.

7. A composite scaffolding plank comprising:

a plurality of wooden boards;

each said wooden board having a fiber bending value of at least 2200 psi, a modulus of elasticity in the range of $1.6x10^6$ to $1.8x10^6$ and a rectangular prism shape;

each said wooden board having a length, a first end surface, a second end surface, a top surface, a bottom surface, and two opposing side surfaces;

each said side surface being narrower than said top surface, said top surface having a width equal to a width of said bottom surface;

said plurality of wooden boards positioned with at least one of said side surfaces of each said wooden board in parallel abutment to at least one side surface of another said wooden board;

said top surfaces of said wooden boards being co-planar;

at least three bores extending through said plurality of wooden boards in a first direction;

at least three spaced helical pins extending transversely in a second direction opposite to said first direction through and imbedded in said bores in said plurality of wooden boards, normal to said opposing side surfaces; and

said plurality of wooden boards being held together in compression by said helical pins.

8. A composite scaffolding plank as in claim 7, further comprising:

all said first end surfaces of said plurality of wooden boards being co-planar; and

all said second end surfaces of said plurality of wooden boards being co-planar.

9. A composite scaffolding plank as in claim 8, wherein said plank has a nominal height of 2" and a combined nominal width of 10".

10. A composite scaffolding plank as in claim 9 wherein said plurality of wooden boards comprise a first wooden board, a second wooden board and a third wooden board.

11. A composite scaffolding plank as in claim 10, wherein:

said top surface and said bottom surface of said first wooden board have a nominal width of 4";

said top surface and said bottom surface of said second wooden board have a nominal width of 3";

said top surface and said bottom surface of said third wooden board have a nominal width of 4";

said opposing side surfaces of said first wooden board have a nominal height of 2";

said opposing side surfaces of said second wooden board have a nominal height of 2"; and

said opposing side surfaces of said third wooden board have a nominal height of 2".

12. A composite scaffolding plank as in claim 7, wherein all said lengths of said plurality of wooden boards are approximately equal.

13. A composite scaffolding plank as in claim 7, wherein said plurality of wooden boards comprises a middle board and two outer boards;

said plurality of wooden boards each having a wood grain direction; wherein

said middle board is oriented such that the direction of said wood grain of said middle board alternates against said wood grain direction of said two outer boards.

16. A composite scaffolding plank comprising a plurality of wooden boards held together in compression by a plurality of helical pins, each of said pins having a square cross section, each said wooden board having a fiber bending value of at least 2200 psi and a modulus of elasticity in the range of $1.6x10^6$ to $1.8x10^6$.

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